

Appendix A

**UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION**

_____)	
ORACLE, INC.)	
)	
Plaintiff,)	
)	
v.)	Case No. CV 10-03561 WHA
)	
GOOGLE INC.,)	
)	
Defendant.)	
_____)	

HIGHLY CONFIDENTIAL

EXPERT REPORT OF DR. GREGORY K. LEONARD

CORRECTED (MARCH 10, 2016)

Exhibit 2b
Programming Languages
of Multi-Homed Applications Appearing on Monthly Top 100 Download Lists
2012-2013

No.	Android Applications	Programming Language
(a)	(b)	(c)
1	4 Pics 1 Song	NDK
2	Angry Birds	NDK
3	Angry Birds Friends	NDK
4	Angry Birds Go!	NDK
5	Angry Birds Rio	NDK
6	Angry Birds Seasons	NDK
7	Angry Birds Space	NDK
8	Angry Birds Star Wars	NDK
9	Angry Birds Star Wars II	NDK
10	Arcane Empires	NDK
11	Asphalt 7: Heat	NDK
12	Asphalt 8: Airborne	NDK
13	Avengers Alliance	NDK
14	Backflip Madness	NDK
15	Bad Piggies	NDK
16	BBM	NDK
17	Beard Salon - Free games	NDK
18	Beat the Boss 2	NDK
19	Bejeweled Blitz	NDK
20	Bitstrips	NDK
21	Blood Brothers (RPG)	NDK
22	Bloons TD 5	NDK
23	Bubble Witch Saga	NDK
24	Can You Escape	NDK
25	Candy Crush Saga	NDK
26	Castle Clash: Age of Legends	NDK
27	CastleVille Legends	NDK
28	Clash of Clans	NDK
29	Clear Vision (17+)	NDK
30	Clear Vision 2	NDK
31	Crazy Dentist - Fun games	NDK
32	CSR Racing	NDK
33	Cut the Rope: Experiments	NDK
34	Dark Summoner	NDK
35	DEAD TRIGGER	NDK
36	Diamond Dash	NDK

No.	Android Applications	Programming Language
(a)	(b)	(c)
37	Diptic	NDK
38	Dots: A Game About Connecting	NDK
39	Drag Racing Classic	NDK
40	DragonVale	NDK
41	Draw Something	NDK
42	Draw Something Free	NDK
43	Dropbox	NDK
44	Dumb Ways to Die	NDK
45	Earn to Die	NDK
46	eBay	NDK
47	ESPN	NDK
48	Farming Simulator 14	NDK
49	Fashion Story™	NDK
50	Flow Free	NDK
51	Frozen Free Fall	NDK
52	Fruit Ninja	NDK
53	Fruit Ninja Free	NDK
54	Fun Run - Multiplayer Race	NDK
55	Gangstar Rio: City of Saints	NDK
56	Google Earth	NDK
57	Google Translate	NDK
58	Grand Theft Auto III	NDK
59	Grand Theft Auto: San Andreas	NDK
60	Grand Theft Auto: Vice City	NDK
61	Guncrafter	NDK
62	Hard Time (Prison Sim)	NDK
63	Hardest Game Ever 2	NDK
64	Hay Day	NDK
65	Hill Climb Racing	NDK
66	Hungry Shark Evolution	NDK
67	Ice Age Village	NDK
68	Injustice: Gods Among Us	NDK
69	Instagram	NDK
70	Into the Dead	NDK
71	Iron Man 3 - The Official Game	NDK
72	Jackpot Party Casino - Slots	NDK
73	Jelly Splash	NDK
74	Jetpack Joyride	NDK
75	Juice Cubes	NDK
76	Jurassic Park™ Builder	NDK
77	Kik	NDK
78	Kingdom Rush Frontiers	NDK
79	Lazors	NDK

No.	Android Applications	Programming Language
(a)	(b)	(c)
80	Legend of the Cryptids	NDK
81	Line Runner	NDK
82	LinkedIn	NDK
83	Magic Piano by Smule	NDK
84	MARVEL War of Heroes	NDK
85	Max Payne Mobile	NDK
86	Mega Jump	NDK
87	Megapolis	NDK
88	Messenger	NDK
89	Minecraft: Pocket Edition	NDK
90	MLB.com At Bat	NDK
91	Modern Combat 3: Fallen Nation	NDK
92	Modern Combat 4: Zero Hour	NDK
93	Monster Doctor - kids games	NDK
94	Moto X Mayhem	NDK
95	My Singing Monsters	NDK
96	My Talking Tom	NDK
97	NBA 2015-16	NDK
98	NCAA March Madness Live	NDK
99	Netflix	NDK
100	Order & Chaos Online	NDK
101	Papa Pear Saga	NDK
102	Parking Frenzy 2.0	NDK
103	Path	NDK
104	Pet Rescue Saga	NDK
105	Photo Editor by Aviary	NDK
106	Pinterest	NDK
107	Plague Inc.	NDK
108	Plants vs. Zombies™ 2	NDK
109	Rayman Jungle Run	NDK
110	Real Basketball	NDK
111	Real Boxing	NDK
112	Real Racing 3	NDK
113	Real Steel	NDK
114	Riptide GP2	NDK
115	Robot Unicorn Attack 2	NDK
116	Ruzzle	NDK
117	Samurai Siege: Alliance Wars	NDK
118	Scribblenauts Remix	NDK
119	Shark Dash	NDK
120	SimpleRockets	NDK
121	Ski Safari	NDK
122	Slots Journey	NDK

No.	Android Applications	Programming Language
(a)	(b)	(c)
123	Snapchat	NDK
124	SongPop	NDK
125	Sonic Dash	NDK
126	Sonic The Hedgehog	NDK
127	SoundCloud - Music & Audio	NDK
128	Stickman Cliff Diving	NDK
129	Subway Surfers	NDK
130	Survivalcraft	NDK
131	Talking Tom Cat 2	NDK
132	Temple Run	NDK
133	Temple Run 2	NDK
134	Temple Run: Brave	NDK
135	Temple Run: Oz	NDK
136	The Amazing Spider-Man	NDK
137	The Impossible Game	NDK
138	The Lost City	NDK
139	The Simpsons™: Tapped Out	NDK
140	The Sims 3	NDK
141	The Sims™ FreePlay	NDK
142	Tiny Village	NDK
143	Toca Hair Salon 2	NDK
144	Top Girl	NDK
145	Trial Xtreme 3	NDK
146	Tumblr	NDK
147	Turbo FAST	NDK
148	Twitter	NDK
149	Unblock Me FREE	NDK
150	Viber	NDK
151	Voxer Walkie Talkie Messenger	NDK
152	WatchESPN	NDK
153	WhatsApp Messenger	NDK
154	Wheres My Mickey? Free	NDK
155	Wheres My Water? 2	NDK
156	Wild Blood	NDK
157	Wipeout	NDK
158	WolframAlpha	NDK
159	Word Search Puzzles	NDK
160	World War™	NDK
161	YouTube	NDK
162	Zombie Highway	NDK
163	Bible	Java
164	Bubble Mania™	Java
165	Comics	Java
166	DC Comics	Java

No.	Android Applications	Programming Language
(a)	(b)	(c)
167	DOOORS - room escape game -	Java
168	Dungeon Village	Java
169	ESPN Fantasy Football	Java
170	Geocaching	Java
171	Hanging With Friends	Java
172	Heads Up!	Java
173	HotSchedules	Java
174	IRS2Go	Java
175	Lord of the Dragons	Java
176	Marvel Comics	Java
177	Move the Box	Java
178	OkCupid Dating	Java
179	PicFrame	Java
180	Robot Unicorn Attack	Java
181	SimSimi	Java
182	Solitaire	Java
183	The Oregon Trail	Java
184	Word Streak With Friends	Java
185	Yelp	Java
186	Doodle Jump	Java
187	Facebook	Java
188	The Moron Test	Java
189	4 Pics 1 Word	Middleware
190	Icomania	Middleware
191	Talking Pierre the Parrot	Middleware
192	Toms Love Letters	Middleware
193	ZEDGE™ Ringtones & Wallpapers	Middleware
194	Amazing Alex	Unknown
195	Asphalt 6: Adrenaline	Unknown
196	Assassins Creed Pirates	Unknown
197	BIG WIN Football	Unknown
198	Bloons TD 4	Unknown
199	CONTRA: EVOLUTION	Unknown
200	D.O.T. Defender of Texel (RPG)	Unknown
201	Devils Attorney	Unknown
202	Dragon Story: New Dawn	Unknown
203	Dragon Story: Valentines Day	Unknown
204	Dragon Story™	Unknown
205	Dream Heights	Unknown
206	Dream Zoo	Unknown
207	Family Feud® & Friends	Unknown
208	Fast & Furious 6: The Game	Unknown
209	Jaws™ Revenge	Unknown
210	MADDEN NFL 12 by EA SPORTS™	Unknown
211	MLB Big Stars Baseball	Unknown
212	MONOPOLY Millionaire	Unknown
213	Monsters University	Unknown
214	NFL Flick Quarterback	Unknown
215	NFL Kicker 13	Unknown
216	NFL Kicker!	Unknown
217	Pet Shop Story™	Unknown

No.	Android Applications	Programming Language
(a)	(b)	(c)
218	Rage of Bahamut	Unknown
219	Slots by Zynga	Unknown
220	Smurfs Village	Unknown
221	SongPop Plus	Unknown
222	Star Wars: Tiny Death Star	Unknown
223	Tap Zoo	Unknown
224	Toy Story: Smash It!	Unknown
225	Ugly Meter	Unknown
226	Whats My IQ?™	Unknown
227	Wheres My Mickey?	Unknown
228	Wheres My Perry? Free	Unknown
229	Wheres My Water?	Unknown
230	Wheres My Water? Free	Unknown
231	World Series of Poker	Unknown
232	Wreck-it Ralph	Unknown
233	ZENONIA® 4	Unknown
234	Zombies, Run!	Unknown

Notes: There are 162 NDK apps.

There are 26 Java apps.

There are 5 Middleware apps.

There are 41 unknown apps.

Sources: "Market Data," App Annie, data as of December 18, 2015.

Programming languages are identified by Google.

Expert Report of Dr. Cox, Exhibit 1b and Exhibit 1c, October 3, 2011.